IN THE SPECIFICATION:

Please amend the Specification as follows.

Please replace lines 79-85 on page 3 with the following amended paragraphs:

Fig. 2 shows a transmitter according to an embodiment of the invention. A directional coupler ~~201~~ may obtain the waveform as amplified by amplifier, that is a transmitted symbol. Subsequently transmitted symbols are next symbols. The signal is provided to a squarer or power detector 203, which may be an analog device. An analog to digital converter ~~follows~~ follows the detector 203 205. The signal may be integrated over the symbol duration using integrator 207, to provide an energy value 209 or energy of the transmitted symbol according to the following equation:

Please replace page 5, line 145- page 6, line 164 with the following amended paragraphs:

Yet another arrangement for determining the epsilon, alpha and g values includes calculating a first alpha, a first epsilon and a first gain based on the energy of the at least four transmitted symbols; and calculating a second alpha, a second epsilon and a second gain based on the energy of the next symbol. The final steps to reach the alpha, epsilon, and gain values may include calculating an alpha based on ~~a~~ an average of the first alpha and the second alpha; calculating ~~a~~ an epsilon based on ~~a~~ an average of the first epsilon and the second epsilon; and calculating a gain based on ~~a~~ an average of the first gain and the second gain. Thus during a compensation period, the imbalance parameters in use

may be average values. Many forms of averaging may be used, including weighting a more recent value more heavily, e.g. weighting a second alpha heavier than a first alpha.

The duration when the compensator provides the compensated data signals is known as the compensation period. The compensator 251 may operate in a sampling period acquisition mode where no changes are made to data symbols provided to the compensator, and such symbols are placed onto the IFFT-bus 261 unchanged by the compensator. The compensator may operate in a feedback mode during a compensation period where the compensator 251 provides the compensated in-phase baseband, i.e. first in-phase compensated data symbol (FICDS) ~~263, and~~, a second in-phase compensated data symbol (SICDS) ~~265, and~~, compensated quadrature baseband, i.e. a first quadrature compensated data symbol (FQCDS) ~~262~~, and second quadrature compensated data symbol (SQCDS) ~~264,~~ signals to the IFFT 271.